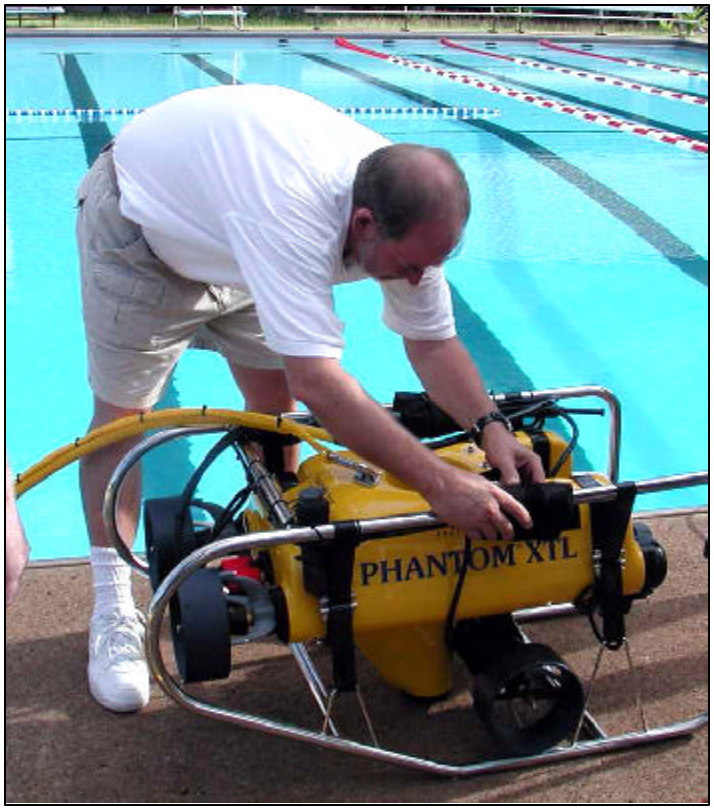
Praise: ***Everyone has an invisible sign hanging from their neck saying "Make me feel important." Never forget this message when working with people.* —Mary Kay Ashe, founder of Mary Kay Cosmetics**

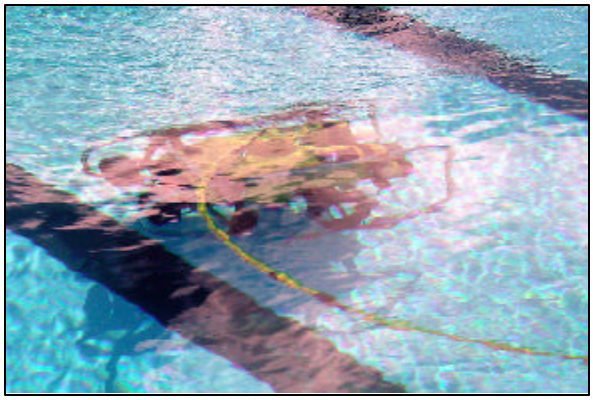
ROV(ing) inspector joins HED ranks



Preparing for commissioning and "sea trials" at the Aliamanu Recreation Center swimming pool, Dan Meyers adds ballast to the frame of the ROV to help it sit exactly right in the water.

Story and photos by Alexander Kufel

HED dive coordinator Dan Meyers is fond of saying that diving routinely requires artificial conditions to sustain life in a hostile environment. With the District's acquisition of a ROV (remote-operation-vehicle), Meyers, who is primarily a civil engineering technician with Civil Works Technical Branch, can now safely and dryly stand ashore during most inspections. He said that instead of entering a "hostile environment," he can direct an ocean-going craft specifically designed for "underwater inspection and light intervention duties" at no risk to himself, or anyone else, and do it "cheaper, faster, and safer than with a human diver."



Skimming along just beneath the surface, ROV has an unimpeded view of underwater events while the pilot stays safely and dryly ashore.

"The real advantage of the ROV is in inspecting areas such as the toe of a breakwater where it's just too dangerous for a diver. While it won't replace the need for divers, in such situations it will dramatically reduce risk," said James Pennaz, chief of Civil Works Technical Branch.

"This particular method of instruction is really useful for the O&M (Operations and Maintenance) inspections that we regularly conduct throughout the islands of Hawaii and the Pacific. It also is an asset to the District," said Meyers.

Marine Electronics Consultants (MECCO) representative Mike Chapman, designers of the system, said that this particular Phantom XTL ROV, number 430, was built by Deep Ocean Engineering, Inc. and is a unique machine built to be readily deployable and is designed for specific missions. The serial number identifies it as such, said Chapman. It was built to comply with HED specifications and meets airline size and weight requirements for both inter-island and long-distance air travel. Each of its four components weighs in at less than 150 pounds and fits in shipping containers no larger than 67 inches long by 44 inches wide by 33 inches high. The cost of this ROV was $96,000 and includes computer software, commissioning and one week of "systems familiarization" with two on-site technicians. Chapman said that the cost of is on the lower end for this type equipment. Number 430 is operable by two persons: a pilot and a cable tender, although Meyers said that once the 400 feet of cable is payed out, the tender can do other things and only the pilot is needed to guide the craft through its activities.

In addition to basic speed, direction and depth controls for the ROV (Remote Operation Vehicle), instrumentation also includes a television, a video cassette tape recorder and a digital recorder for collecting and recording Global Positioning location plots and visual information in both digital and VHS formats.

An on-board video camera is used to conduct inspections and is remotely controlled, as is the craft itself. Inspection is aided by supplemental halogen lights. A GPS (Global Positioning System) plots locations and data is collected and recorded in both digital and VHS formats. An on-screen display weaves the components together and a printout is available for review.

Meyers said that the learning curve is not as steep as he thought it would be, and he is anticipating putting it to work this summer.